

UNITED STATES PATENT APPLICATION

of

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for

**FINANCIAL DISCLOSURE CONTENT SYNCHRONIZING SOFTWARE**

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Title Of Invention

**FINANCIAL DISCLOSURE CONTENT SYNCHRONIZING SOFTWARE**

Prior Application

[0001] Applicant claims priority benefits under 35 U.S.C. §119(e) of U.S. Provisional Patent Application Serial No. 60/453,751, filed March 11, 2003, and U.S. Provisional Patent Application Serial No. 60/462,065, filed April 11, 2003, and U.S. Provisional Patent Application Serial No. 60/461,386, filed May 16, 2003.

Field Of The Invention

[0002] Methods, systems, and related software products are provided for delivering different data formats of financial disclosure content thereby enabling users to manipulate a data set in one format to retrieve information from data sets in another format.

Background Of The Invention

[0003] A prime commodity of the information society in which we live is timely, cost effective and accurate data analysis. However, research is currently produced in prodigious quantities in almost all fields of study, including but not limited to, finance, medicine, engineering, social sciences and government and therefore the goal of timely, cost effective and accurate data analysis is becoming persistently more difficult to achieve due to a analyst's limited resources to study all the available research data.

[0004] One of the principal reasons for the flood of research information is the efficiency of modern data processing tools such as word

processing and spreadsheet programs, which allow a researcher to generate a highly detailed report in a matter of hours or days when it used to take days and weeks to produce the same report without modern data processing tools. Also, since data produced for prior reports is presently so easy to manipulate, research reports have been expanding in size because a current research report is an updated version of an older research report. As a result, large quantities of research data are generated that can obscure the data that is relevant to an analyst's particular research goal.

[0005] For example, an investor that owns a particular company's stock usually cannot wade through every detail of a lengthy 10-Q in order to discern the health of the company when the 10-Q is released because the stock will be moving due to others trading on the information as soon as it is released. As a result, economically sensitive news has an inherent time value characteristic for investors because economically sensitive news is more valuable to investors if it is acted on in real-time or near real-time versus any time delay in action. This inherent time value characteristic of economically sensitive news is the key component in understanding the importance of securities market timing.

[0006] Timing in the market is the ability to receive timely economically sensitive news, digest its impact on the security and react accordingly to the conclusions drawn from the impact analysis. Reaction time is important because the pool of competing investors will impound the value of the impact of the economically sensitive news very quickly into a security. The ideal would be for an investor to react instantaneously to economically sensitive news, but in real life an investor will have to settle for a close approximation of the ideal. Accordingly, any delay in reaction to a release of economically sensitive news will result in a less than ideal result for the slow investor.

[0007] Consequently, what is need is a system and method that will reduce the research work load by providing the securities information

disclosure in different data formats thereby allowing a user to choose which format will provide the appropriate degree of disclosure for their needs. The system and method should also enable a user to easily navigate between data formats because different sections of each information disclosure may require different levels of scrutiny.

### Summary Of The Invention

[0008] Accordingly, it is an object of the present invention to provide a system to provide a securities information disclosure in different data formats in which each data format is synchronized with the other data formats.

[0009] Another object of the present invention is to provide a summary that summarizes the securities information disclosure.

[00010] A further object of the present invention is to provide a system that can search securities information disclosures in different data formats by a single search entry.

[00011] Still another object of the present invention is to provide a transcript of the securities issuer information disclosure wherein the subject matter of the transcript is linked to substantially correspond to the subject matter of the audio disclosure data.

[00012] Still yet another object of the present invention is to provide users an interface to easily and efficiently access and digest securities information disclosures in different formats.

[00013] And still yet another object of the present invention is to provide a system whereby the user can access security issuer specific content in varying degrees of specificity thereby allowing the user to choose what level of detail they want to utilize. Also, the varying degrees of content specificity will be linked in a substantially synchronized manner thereby

permitting the user to easily navigate between disclosure data in different formats.

[00014] These and other objects of the present invention are achieved by providing an apparatus for providing security disclosure information in at least two aligned formats, the apparatus including security disclosure data in an audio format, a processor for receiving the audio security disclosure data and for inserting a first marker therein and said processor for creating a text from the audio security disclosure data and for inserting a second marker in the text in a position corresponding to a location of the first marker in the audio security disclosure data.

[00015] Preferably, the apparatus also includes where said text is at least one of a transcript of said audio security disclosure data and a summary of said audio security disclosure data and further comprises an user interface in communication with said processor for delivering proximately said first marker audio data with said second marker text.

[00016] The apparatus can also includes where said first marker audio data is delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface said second marker text, said second marker text is delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface said first marker audio data, the insertion of said first marker in the audio data is based on at least one of time, phonemes, sections, metadata, and patterns, the insertion of said second marker in the text is based on at least one of time, sections, patterns, letters, words, sentences, paragraphs, alphanumeric characters, metadata, and statistics of contextual information, and said security disclosure data also includes visual data and said processor inserts a third marker in said visual data in a position corresponding to at least one of the first marker location in the audio data and the second marker location in the text.

[00017] Preferably, the apparatus also includes an user interface in communication with the processor for delivering proximately said third marker visual data with at least one of said first marker audio data and said second marker text to said user interface, said first marker audio data is delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface said third marker visual data, said first marker audio data is delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface said second marker text portion, said first marker audio data is delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface said second marker text and said third marker visual data, said second marker text is delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface said third marker visual data, said second marker text is delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface said first marker audio data, said second marker text is delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface said first marker audio data and said third marker visual data, said third marker visual data is represented on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface said first marker audio data, said third marker visual data is represented on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface said second marker text, and said third marker visual data is represented on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface said second marker text and said first marker audio data.

[00018] The apparatus can also includes where said processor inserts a plurality of first markers into said audio data and a plurality of second markers in the text, said processor inserting each second marker in the text in

a position corresponding to the location of a particular first marker in the audio data and further comprising an user interface in communication with said processor for delivering proximately each particular first marker audio data with corresponding second marker text on said user interface, wherein each first marker audio data is delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface corresponding said second marker text, wherein each second marker text is delivered on said user interface as selectable connections which when selected will enable said processor to deliver to said user interface said corresponding first marker audio data, wherein the insertion of said plurality of first markers in the audio data are based on at least one of time, phonemes, sections, metadata, and patterns, wherein the insertion of said plurality of second markers in the text are based on at least one of time, sections, patterns, letters, words, sentences, paragraphs, alphanumeric characters, metadata, and statistics of contextual information, and wherein said security disclosure data also includes visual data and said processor inserts a plurality of third markers in said visual data, said processor inserting each third marker in the visual data in a position corresponding to the location of at least one of a particular first marker and a specific second marker.

[00019] Preferably, the apparatus also includes an user interface in communication with the processor for delivering proximately said plurality of third marker visual data with at least one of corresponding said first marker audio data portions and said second marker text to said user interface, wherein said first marker audio data is delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface corresponding said third marker visual data, wherein said first marker audio data are delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface corresponding said second marker text, wherein said first marker audio data is delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface corresponding said second marker text and said third marker

visual data, wherein said second marker text is delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface said third marker visual data, wherein said second marker text is delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface corresponding said first marker audio data, wherein said second marker text is delivered on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface corresponding said first marker audio data and said second marker visual data, wherein said third marker in the visual data delivered to said user interface is represented on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface corresponding said first marker audio data, wherein said third marker in the visual data delivered to said user interface is represented on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface corresponding said second marker text, wherein said third marker in the visual data delivered to said user interface is represented on said user interface as a selectable connection which when selected will enable said processor to deliver to said user interface corresponding said second marker text and said first marker audio data, wherein the insertion of said first markers in the audio data are based on at least one of time, phonemes, sections, metadata, and patterns, wherein the insertion of said second markers in the text are based on at least one of time, sections, patterns, letters, words, sentences, paragraphs, alphanumeric characters, metadata, and statistics of contextual information, and wherein the insertion of said third markers in the visual data are based on at least one of time, sections, patterns, colors, and metadata.

[00020] The invention further includes a method for providing security disclosure information in at least two aligned formats, the method including the steps of receiving audio security disclosure data, inserting a first marker into the received audio security disclosure data, creating a text from the audio security disclosure data and inserting a second marker in the text in a position



corresponding to a location of the first marker in the audio security disclosure data.

[00021] Other objects, features and advantages according to the present invention will become apparent from the following detailed description of certain advantageous embodiments when read in conjunction with the accompanying drawings in which the same components are identified by the same reference numerals.

#### Brief Description Of The Drawings

Fig. 1 is a block diagram of a system for generating a securities information disclosure in various data formats that are substantially synchronized in accordance with the present invention;

Fig 2 is a flowchart of the generation of the different data formats and the substantial synchronization of the different data formats in accordance with the invention of Fig. 1;

Fig 3 is a flowchart showing an exemplary manner in which the substantially synchronized data formats are delivered and retrieved on a user interface in accordance with the invention of Fig. 1;

Fig 4 is exemplary screen shot of the user interface in accordance with the invention of Fig. 1; and

Fig. 5 is exemplary screen shot of the user interface in accordance with the invention of Fig. 1.

#### Detailed Description of Certain Advantageous Embodiments

[00022] Methods, systems and related software products are provided for creating a system 10 in which security issuers' audio disclosure information can be formatted in multiple formats that are linked. Referring to Fig. 1, system 10 includes a processor 12 such as a computer, which receives

security disclosure data 14. Security disclosure data is information such as an earnings call/presentation data, guidance call/presentation data, sales call/presentation data, shareholder/annual meeting data, and the like.

[00023] Processor 12 is coupled with storage 16 which is the primary and secondary memory of processor 12 and can store the security disclosure data in multiple formats. Processor 12 is also in communication with user interface 18 which is generally a remote browser from which a user can access the security disclosure data in processor 12 or storage 16. User interface 18 can also be an application specific interface.

[00024] Processor 12 includes a security disclosure data to text module 20, which generates from the audio data portion of the security disclosure data a text of the security disclosure data. The text can be a verbatim transcript, near verbatim, and/or a summary of the audio data. Processor 12 also includes a marker insertion module 22, which places a marker in the different formats of the security disclosure data at a location where each data format's subject matter can be related and/or substantially synchronized.

[00025] For example, referring to block 32 of Fig. 2, a marker is inserted into the audio portion of the disclosure data. The marker is placed according to criteria based on at least one of time, phonemes, sections, metadata, patterns, and/or subject matter of the disclosure data and the number of markers inserted into the audio data is dependent on the user's needs. The audio data with at least one marker is saved to storage 16 for later retrieval at block 34.

[00026] Security disclosure data to text module 20 makes a text of the audio data and notes where the marker or markers were inserted into the audio data. Marker insertion module 22 inserts a particular marker in the text format that corresponds to the location of a particular marker inserted in the audio data at block 36 and the insertion is based on at least one of time,

sections, patterns, letters, words, sentences, paragraphs, alphanumeric characters, metadata, statistics of contextual information, and/or subject matter. Text with markers 26 are saved in storage 16 at block 38.

[00027] An alternative embodiment of the present invention will also enable the insertion of a marker into visual data corresponding to the location of a particular marker in the audio data by marker insertion module 22 at block 40. The marker inserted into the visual data will enable system to substantially align portions of the visual data with a portion of the audio data and text. The marker in visual data is based on at least one of time, sections, patterns, colors, metadata, and/or subject matter. Visual data with markers 28 is saved to storage 16 at block 42.

[00028] The markers inserted into the different portions of each data formats enable a selectable connection for each marker. Selectable connection module 24 delivers the data including the markers to the user on user interface 18 as visually distinct such as by shading, coloration, bolding or the like. The visual distinct portion moves as the user scrolls through the data, over time, and/or according to the activation by user interface's 18 cursor. The selectable connection is similar in concept to hyperlinking but instead of transferring a user to a different concept, the selectable connection is used to transfer the user to data with a similar concept to the selectable connection but in a different data format.

[00029] Referring now to Fig. 3, an user is provided with security disclosure data including markers as selectable connections on user interface 18 at block 44. The user can activate a selectable connection such as by clicking on the selectable connection, at block 46. The activation of the selectable connection will cause processor 12 to retrieve from storage 16 other data formats that corresponds to the marker that the selectable connection represents at block 48. Processor 12 delivers the portion of the data formats that correspond to the activated selectable connection at block 50.

[00030] For example, the activation of selectable connection 52 causes selectable connection 54 to move to the position represented in Fig. 4. As a result, the user can be viewing both a transcript with markers and a summary with markers on user interface 18 and a single line in the summary will be presented as visually distinct while an entire paragraph of the corresponding transcript is highlighted because the broad concept in the single line of the summary represents all the concepts in the transcript paragraph. In both instances, the visually distinct portion represents one marker in the summary format of the text and in the transcript format of the text.

[00031] Consequently, the user can read the summary, find a point of interest in the summary, activate any portion of the summary because every portion of the summary is a selectable connection, and have delivered on user interface 18 corresponding transcript data. Likewise, any portion of the transcript can be activated and the user can be delivered corresponding summary data.

[00032] Furthermore, the selectable connections work in other data formats such as for audio data, visual data, multimedia data and the like. For instance, as a user listens to audio data 58, the summary selectable connection 56 and transcript selectable connection 60 moves through the data set corresponding to where the markers in each data format are related to the markers in the audio data as is shown in Fig. 5. In this example, the markers were placed to substantially synchronize the subject matter of the different data formats thereby enabling processor 12 to deliver to user interface 18 at substantially the same time similar subject matter but in data formats.

[00033] Thus, system 10 provides the user a way to access and search security disclosure data in different data formats according to their needs because all the security disclosure data sets are integrated and substantially synchronized. For instance, the user can use summary data to

gauge the importance of a security issuer disclosure, or a section of such disclosure, without having to read through all the details of the disclosure. If the user deems a portion of the disclosure data important in the summary, then the user can view the related transcript text by activating the selectable connection to understand the finer details and context not available in summary.

[00034] Also, the use of corresponding markers in security disclosure data in different formats enables a user to easily search the different data formats for information that would be difficult to access otherwise. For instance, using text data to locate the corresponding audio data and/or video data that produced it will enable a user to study visual and audio nuance that is missing from the text such as the tone of voice and the body language of the person delivering the information.

[00035] Although the invention has been described with reference to a particular arrangement of parts, features and the like, these are not intended to exhaust all possible arrangements or features, and indeed many other modifications and variations will be ascertainable to those of skill in the art.